

II.—*Notice of the Himalayan Vulture Eagle. By Lieut. T. HUTTON.*

In a former notice of this bird, drawn up from the examination of an injured and decaying specimen, I pointed out characters which I thought would entitle it to be ranked as a new and distinct species from that known as the *Gypaëtos Barbatus*, or Bearded Vulture.

I have since that time had opportunities of examining many recently killed specimens in various stages of plumage, from the yearling to the adult bird, and the result of my observations during nearly two years, is to leave me still farther convinced of the correctness of my conjecture as to its distinctness from the Lammer Geyer of the Swiss, and the Bearded Vulture of authors.

Mr. HODGSON, in a paper subsequent to my former notice, describes a Himalayan *Gypaëtos*, and pronounces it to be the European Bird, but I think I shall be able to show that the subject of the present paper possesses two constant characters, which are wanting in the former bird, and which, being constant, I believe to be sufficient to entitle their possessor to rank as a species new to science.

The characters I allude to, are, the dark gorget at the bottom of the neck, across the orange of the under parts, which is *always wanting* in the *G. Barbatus*, or of which at least no mention is made by any author that I have been able to consult*;—and the relation which the first prime quill bears to the length of the third.

Mr. HODGSON's bird, though stated to the contrary by him, I should conjecture to have been *immature*, as well as under moult; for he describes it as possessing brown feathers about the neck, which in the adult bird is never the case; and moreover he gives the *fourth* quill longest, which character if correct and constant would at once distinguish it, not only from the present subject, but also from the known Bearded Vulture, in both of which the *third* quill is the longest.

Mr. HODGSON asks also, in his postscript, in reference to my description, “Is there not here some undue allowance for shrinking in his old and mutilated specimen?” My answer is, ‘On the contrary, I supposed an unskilful hand to have stretched it in skinning, and consequently erring on the safe side, gave $9\frac{1}{2}$ feet of expanse, or *less* than the actual measurement.’

The reason for asking this question, is not however quite apparent, since he has in the same paper allowed it to be probable that the bird may attain an expanse of *eleven* feet, or eighteen inches *more* than mine.

* Brisson: Cuvier: Gardens and Menagerie Zoological Society: Stark's Elements Nat. Hist. Encyclopædia Metropolitana, &c.

I have seen these birds from *Subathu* to the Snowy range; they are by no means of rare occurrence throughout the Hills, and at *Simla* are sometimes even numerous. They may be seen in all stages of plumage, from the dark-colored yearling, to the rich orange hue of the adult. During its flight the dark gorget on the breast of the mature bird is distinctly visible, and is darkest and most conspicuous in the female. Immature birds have the plumage of a dark brownish or blackish colour, varied according to age, with a few buff or dusky orange feathers intermixed; the under parts are also dark and the gorget consequently wanting. In those of the first year, the black bristles leading over the eyes to the hind part of the head are likewise wanting, but in the second and after years, as the plumage advances to maturity, these bristles also appear.

Their flight is strong and swift, and in the habit of sweeping through the air on extended wing, and in the occasional deep bending of the pinions as they renew the force of their advance, they are not unlike the Wandering Albatross (*Diomedea exulæus*), and this resemblance is often much heightened during the rainy season, when the white clouds rolling through the dark valleys of the Hills, give to the scene the appearance of a stormy sea. The *Himálayan Vulture Eagle*, though often seen by two and three at a time, is not gregarious; they feed on offal and carrion and the smaller animals, and like the kite (*Falco cheela*) will carry off portions of flesh in their talons and devour them on the wing. They are wary birds and will not descend to a bait as long as they perceive any person on the watch; they are difficult to bring within range of shot in consequence, and unless the fowler lies concealed he may often watch for days without succeeding in bringing down a specimen. When pressed by hunger, however, which in these regions must sometimes be the case, he becomes much bolder and is more regardless of danger, though still somewhat cautious in his approach to man. If flesh be left exposed unwatched, he does not scruple to take his share, using the utmost despatch and casting a keen glance around as if conscious of the theft and fearful of detection. On alighting, the attitude, and particularly the gait in walking, very strongly resemble those of the "*Neophron percnopterus*," the head and neck being held rather erect and the feet, in walking, lifted high off the ground.

The only sound I have heard them emit, is a hoarse croaking note uttered when angry.

They moult once in the year, during the months of May, June and part of July.

I have occasionally seen them soaring round in company with the

kite and *Neophron percnopterus*, while the *Pondicherry* and Indian Vultures (*V. ponticerianus* and *V. Indicus*) were feasting on a carcass in the depth of the glen below.

They select some retired and nearly inaccessible cliff or ledge of rock whenever they seek to build their nests, which they commence in April, and the young are ready to take wing about the end of June.

On a comparison of Nos. 1 and 3, with the description of the mutilated bird formerly given by me it will be seen that the relative length of the primary quills is as near as possible the same in all, speaking not only to the accuracy of my measurements of the decaying specimen, but affording a strong additional reason for separating the Himalayan from the European *Gypaëtos*, in which the first quill is represented as *nearly equal* to the *second* and *third*, while in the present species the third quill, in adult birds, uniformly exceeds the first, at the least, by three inches and a half.

Thus my own conviction is, that the relative length of the primary quills, together with the black gorget on the lower part of the neck, furnish *two constant* characters, uniformly foreign to the Bearded Vulture of authors, and I have therefore ventured to offer it as a species new to science, under the title of

GYPAETOS HEMACHALANUS.

G. supra fusco-niger, subtus ferrugineus; collo obscurior, infrà pallidior; collo inferiore nigro circumincto; primoribus, rectricibusque cinereis, marginibus nigrexentibus; remige tertio cæteris longiore, $3\frac{1}{2}$ poll. primum excedente. In cæteris G. Barbato similis.

The following are correct measurements and descriptions of birds of various ages.

No. 1. Adult in full plumage.

	Ft. in.
Length from tip of bill to end of tail,	... 4 0
Breadth of expanded wings,	... 8 6
Length of the bill from tip to gape,	... 0 4
Basal height,	... 0 1 $\frac{1}{2}$
Basal breadth at the gape,	... 0 2 $\frac{1}{2}$
Point of bill falling below the under mandible,	... 0 0 $\frac{1}{2}$
Tail of 12 feathers, forming a wedge.	
The two central feathers of which are in length,	... 1 7
The first from the centre is 0 $\frac{1}{4}$ in. less or	... 1 6 $\frac{1}{4}$
The second , , , 1 in. less or	... 1 5 $\frac{1}{4}$
, , , , 1 $\frac{1}{2}$ ins. less or	... 1 3 $\frac{3}{4}$
, , , , 1 $\frac{1}{2}$ ins. less or	... 1 2 $\frac{1}{4}$
, , , , 2 $\frac{1}{4}$ ins. less or	... 1 0

The outer feather is therefore 7 inches shorter than the central one. The first quill of the wings is $3\frac{2}{5}$ inches less than the 2nd.

„ second „ „ $0\frac{3}{5}$ inch less than the 3rd.

„ third „ „ 1 inch longer than the 4th.

The third quill is therefore the longest, and exceeds the first by $3\frac{1}{2}$ inches.

Head clothed with short and somewhat down-like whitish feathers, with a black line of strong hairs arising from the base of the upper mandible running over each eye, and turning round to the back part of the head, but not joining. A short black stripe or moustache running backwards from the gape, covering the ears, which are on a line with the mouth. Nostrils and cere concealed beneath strong black bristles, directed forwards. Chin with a bunch of black bristles hanging down like a beard; from thence, the throat, neck, breast, belly, vent and thighs are ferruginous or pale orange, darkest on the chin and throat, palest on the vent and thighs; upper half of the back part of the neck, buff or very pale orange; lower half of the same, deep black, as also the back and rump, each feather with a narrow white shaft: upper smaller wing coverts black, with a buff or ferruginous stripe down the shaft, ending in a somewhat triangular spot of the same color; under wing coverts the same. From the black on the hind part of the neck, across the orange feathers of the breast, runs a band of deep brown or black, forming a well marked collar or gorget. Large wing coverts above, all the quills of the wings and tail, ashy black with darker edges, the shafts white. Tail of twelve feathers and wedged. Bill horn-colored; legs clothed to the toes with pale ferruginous feathers; toes bluish lead color; claws black, strong and curved. Under side of the wings pale cinereous, the ends of the quills blackish.

This bird was shot at *Tootoo* in September 1836, about 5 marches from *Simla*, and was in full plumage, the moult taking place in May and June.

This description will be found generally applicable to all adult birds, with the exception of the length and breadth, in which there is great variety.

No. 2. Adult and moult; plumage in all respects agreeing with the last.

	<i>Ft. in.</i>
Length from tip of bill to end of tail,	... 3 7
Expanse of wings,	... 8 6
Length of bill,	... 0 4
Basal height,	... 0 2
Basal breadth,	... 0 $2\frac{3}{4}$
Point falling below the under mandible,	... 0 $0\frac{1}{2}$
The third quill of the wings longest,	

Shot at *Simla*, 16th May 1837, while devouring some raw flesh laid out as a bait.

Had the plumage been perfect, it would have exceeded the last in size.

No. 3. Young of the first year, in moult.

Length, 3 ft. 9 in. Breadth, ft. 8 9 in.

The first quill $3\frac{1}{2}$ inches less than the second.

„ second „ $0\frac{1}{2}$ inch less than the third.

„ third „ $0\frac{1}{2}$ inch longer than the fourth.

The 3rd quill longest.

The relative length of the quills agrees closely with the foregoing birds, something being allowed for moult. Plumage above dark brown, clouded with black, with a few buff or pale brown feathers on the upper part of the back. Head black, as also the upper part of the neck. Line of bristles over the eyes wanting. Strong over the cere and on the beard. Chin, throat and neck beneath, sooty black, from thence to the vent, dusky or pale brown. Under wing coverts dusky.

Shot at *Simla*, July 1837.

No. 4. Young of the 2nd or 3rd year, in moult.

	Ft. in.
Length, 8 ft. 9 in. Breadth, 8 ft. 4 in.	
Length of bill,	... 0 $3\frac{3}{4}$
Basal height,	... 0 2
Basal breadth,	... 0 $2\frac{3}{4}$
Point falling,	... 0 $0\frac{1}{2}$

The 3rd quill longest.

Beneath, from the beard to the breast, dark brown intermixed with tawny and orange-colored feathers; breast, belly, vent, thighs and under tail coverts, dirty orange clouded with a brownish tinge. Under wing coverts brown with cloches of black. Upper parts varied with a mixture of dark brown and tawny feathers, darkest on the rump. Upper wing coverts brown with dusky patches. Quills of the tail and wings dusky brown or ashy black, the shafts white. Feet leaden blue, claws blackish horn color. The line of bristles over the eyes is well marked in this specimen. The upper wing coverts, &c., want the buff-colored shaft and triangular spot at the tips, so conspicuous in the adult bird.

This specimen had no band or gorget on the lower part of the neck as in the mature bird, and is I believe in the second year's plumage, when the orange of the upper and under parts of the neck is beginning to usurp the place of the dark brown feathers of the first year.

Shot at *Simla*, 20th May 1837.

The measurements of three other adult Birds, shot at *Simla*, were as follows :

	ft. in.		ft. in.
Adult male, Length,	4 0	Breadth,	9 0
Adult female,	4 1½		9 0
Adult female,	0 0		9 8½

All had the gorget, and it was darkest in the females; in other respects all agreed with No. 1, above described.

The *Neemuch* specimen was in length 3 feet 11 inches, and in breadth 9 feet 6 inches.

The following table will serve to show how much they vary in dimensions.

	ft. in.		ft. in.
1. Adult male in full plumage, Length,...	4 0	Breadth,...	8 6
Adult male,	4 0		9 0
Adult female,	4 1½		9 0
Adult female,	0 0		9 8½
5. Neemuch bird adult,	3 11		9 6
Adult bird moulting,	3 7		8 6
Young bird 1st year? moulting,	3 9		8 9
8. Young bird 2nd or 3rd year? moulting,..	3 9		8 4

Now allowing the two females to be of the same length, we shall have an average on the five adult birds in full plumage, of length rather less than four feet and half an inch, and breadth rather more than nine feet one and half inch.

POSTSCRIPT.—I formerly noticed the presence of a dark line along the head; this is erroneous, and was merely occasioned by the loss of the occipital feathers in the old specimen, leaving a few stumps and blackish hairs.

III.—Account of *Kálá Bágħ* on the right bank of the Indus. By Munshí MOHAN LA'L.

During our voyage on the Indus we saw no place on its banks worthy of notice except *Rorí* and *Kálá Bágħ*. The former presented nothing new which would enter my head in addition to the account read in the work of Captain BURNES, but the latter though in some respect already laid before the public by Mr. ELPHINSTONE, still enchanted me with its appearance.

The view of *Kálá Bágħ* or *Bághán* from the valley which pours out the Indus is oval; and from the opposite bank it gives a most striking scenery which I cannot describe in any language. The houses of *Kálá Bágħ* are built of stones and mud on the very bank of the river. The *Bázdr* is so narrow, that two men can hardly pass abreast through it,